AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A method of processing image data, the method comprising the steps of:

acquiring a frame of image data; and

correcting the frame of image data using a set of correction coefficients

corresponding to detector elements of a detector array used to collect the frame of image data; and

compressing a dynamic range of the frame of image data using a dynamic range compression algorithm that utilizes down-sampling, median filtering, and upsampling.

2. (Currently Amended) The method of claim 1, further comprising the step of:wherein the correcting step

normalizingnormalizes the frame of image data prior to the step of compressing the dynamic range.

- 3. (Canceled)
- 4. (Original) The method of claim 2, further comprising the step of:

applying a dead-channel-replacement correction after the step of normalizing the frame of image data.

- 5. (Original) The method of claim 4, further comprising the step of: applying a scene-based non-uniformity correction after the step of applying the dead-channel-replacement correction.
 - 6. (Original) The method of claim 5, further comprising the step of: applying edge-enhancement after the step of compressing the dynamic range.
- 7. (Original) The method of claim 6, wherein applying edge-enhancement comprises the steps of:

blurring input image data;

subtracting blurred input image data from the input image data.

8. (Original) The method of claim 7, wherein blurring input image data comprises:

applying a first edge filter to the input image data, thereby generating firstedge-filtered data; and

applying a second edge filter to the first-edge-filtered data, wherein first kernel coefficients of the first edge filter and second kernel coefficients of the second edge filter are configured to approximate a resultant gaussian function.

- 9. (Original) The method of claim 6, further comprising the step of: applying noise filtering after the step of applying edge-enhancement.
- 10. (Original) The method of claim 9, further comprising the step of: displaying an image corresponding to the frame of image data after the step of applying noise filtering.
- 11. (Original) A method of dynamic range compression of image data, the method comprising the steps of:

down-sampling a frame of image data comprising a first array of pixels to generate a second array of pixels;

applying a first median filter to the second array of pixels to generate a blurred array of pixels;

up-sampling the blurred array of pixels; and

removing at least a portion of low-frequency gradient data generated by previous steps from the frame of image data.

- 12. (Original) The method of claim 11, wherein said up-sampling comprises applying bilinear interpolation.
- 13. (Original) The method of claim 11, wherein the first median filter is a large-area median filter.

- 14. (Original) The method of claim 13, wherein the large-area median filter has a kernel of N=L+M elements, wherein L elements are active elements and M elements are non-active elements.
- 15. (Original) The method of claim 14, wherein the active elements are arranged in a predetermined pattern.
- 16. (Original) The method of claim 15, wherein the predetermined pattern is configured as a star-shaped pattern.
- 17. (Original) The method of claim 15, wherein the predetermined pattern is configured as a checkerboard pattern.
- 18. (Original) The method of claim 11, further comprising the step of: applying a second median filter after applying the first median filter, the second median filter having a smaller kernel than the first median filter.
 - 19. (Original) The method of claim 18, further comprising the step of: applying a mean filter after applying the second the median filter.
- 20. (Original) The method of claim 19, further comprising the step of: smoothing output data from the up-sampling, wherein output data from said smoothing provides the low-frequency gradient data.

- 21. (Original) The method of claim 20, wherein said smoothing comprises: applying a vertical and horizontal finite-impulse-response (FIR) filter.
- 22. 25. (Canceled)
- 26. (Currently Amended) An apparatus for processing image data, comprising:

an image-data source; and

a processor unit coupled to the image-data source, the processor unit being configured to correct a frame of image data using a set of correction coefficients corresponding to detector elements of a detector array used to collect the frame of image data, and compress a dynamic range of [[a]]the frame of image data using a low-frequency-suppression algorithm that uses down-sampling, median filtering, and up-sampling.

27. (Original) An apparatus for dynamic range compression of image data, comprising:

a processor unit coupled to an image-data source, the processor unit being configured to:

down-sample a frame of image data comprising a first array of pixels to generate a second array of pixels;

apply a first median filter to the second array of pixels to generate a blurred array of pixels;

up-sample the blurred array of pixels; and remove at least a portion of low-frequency gradient data thereby generated by the processor unit from the frame of image data.

- 28. (Canceled)
- 29. (Previously Presented) An apparatus for processing image data, comprising:
 - a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 1.

- 30. (Previously Presented) An apparatus for processing image data, comprising:
 - a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 2.

- 31. (Canceled)
- 32. (Previously Presented) An apparatus for processing image data, comprising:
 - a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 4.

33. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 5.

34. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 6.

35. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 7.

36. (Previously Presented) An apparatus for processing image data, comprising:

a processor coupled to the memory, the processor being configured to execute the method of claim 8.

37. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 9.

38. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to cooperate with a display to execute the method of claim 10.

39. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 11.

40. (Previously Presented) An apparatus for processing image data, comprising:

a processor coupled to the memory, the processor being configured to execute the method of claim 12.

41. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 13.

42. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 14.

43. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 15.

44. (Previously Presented) An apparatus for processing image data, comprising:

a processor coupled to the memory, the processor being configured to execute the method of claim 16.

45. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 17.

46. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 18.

47. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 19.

48. (Previously Presented) An apparatus for processing image data, comprising:

a processor coupled to the memory, the processor being configured to execute the method of claim 20.

49. (Previously Presented) An apparatus for processing image data, comprising:

a memory; and

a processor coupled to the memory, the processor being configured to execute the method of claim 21.

50. – 53. (Canceled)

- 54. (Previously Presented) A computer-readable medium adapted to cause a processor to execute the method of claim 1.
- 55. (Previously Presented) A computer-readable medium adapted to cause a processor to execute the method of claim 2.
 - 56. (Canceled)
- 57. (Previously Presented) A computer-readable medium adapted to cause a processor to execute the method of claim 4.
- 58. (Previously Presented) A computer-readable medium adapted to cause a processor to execute the method of claim 11.

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- 59. (Canceled)
- 60. (Previously Presented) The method of claim 1, wherein said median filtering comprises applying a median filter to down-sampled image data, the median filter having a kernel of N=L+M elements, wherein L elements are active elements and M elements are non-active elements, the active elements being arranged in a predetermined pattern.
- 61. (Previously Presented) A computer-readable medium adapted to a cause a processor to execute the method of claim 60.
- 62. (Previously Presented) The apparatus of claim 26, wherein said median filtering comprises applying a median filter to down-sampled image data, the median filter having a kernel of N=L+M elements, wherein L elements are active elements and M elements are non-active elements, the active elements being arranged in a predetermined pattern.
- 63. (Previously Presented) The method according to claim 1, wherein the down-sampling, median filtering, and up-sampling are applied in that order.
- 64. (Previously Presented) A computer-readable medium adapted to a cause a processor to execute the method of claim 62.

65. (Previously Presented) The apparatus according to claim 26, wherein the down-sampling, median filtering, and up-sampling are applied in that order.